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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,702	07/02/2003	Girish P. Chandranmenon	Chandranmenon 2-2-9-12-2	5036
46363 7590 08/26/2008 PATTERSON & SHERIDAN, LLP/ LUCENT TECHNOLOGIES, INC 595 SHREWSBURY AVENUE SHREWSBURY, NJ 07702				
EXAMINER DOAN, KIET M				
ART UNIT 2617		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/613,702

Applicant(s)

CHANDRANMENON ET AL.

Examiner

KIET DOAN

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8,10-12,14-18,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,10-12,14-18,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/03/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Conclusion

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/04/2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 5, 14, 18, 22 and 23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 14, 16, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linder et al. (2002/0194385 A1) in view of Yadav et al. (US 6,879,587 B1).

Claims 1, 14, and 22. Linder teaches a method of operating a mobile node having a network layer and a plurality of network interface, each with a respective

device driver and a computer readable medium, encoded with computer code, the method comprising the steps of:

transmitting communications from the network layer to any of the network interfaces by way of a multi-interface driver capable of communication with the respective device driver corresponding to each respective network interface (Abstract, Paragraph [0025], Fig.1 show mobile 10 contain multi-interfaces 14-17 capable of communication to each respective network interface 21-24) ; and

switching from a first one of the network interfaces to a second one of the network interface by changing the one of the plurality of device drivers with which the multi-interface driver communicates (Paragraphs [0008], [0010-0011] teach switching from one network connection to another and change the connection interface of the mobile node) . Linder **fails to explicitly teach** while hiding the switching from the network layer, wherein the switching is hidden from the network layer using virtual interface, the virtual interface presenting the appearance of always being an active interface to the network layer regardless of which of the network interfaces is being used at a given time.

In an analogous art, Yadav teaches while hiding the switching from the network layer, wherein the switching is hidden from the network layer using virtual interface, the virtual interface presenting the appearance of always being an active interface to the network layer regardless of which of the network interfaces is being used at a given time (Abstract, Col.1, lines 40-67, Col.2, lines 1-10, Fig.1 show the network interfaces A, B

and C located in the switch 100 wherein the switches 100 and 200 as hidden from the network).

Therefore, It would have been obvious at the time that the invention was made to modify Linder with Yadav's system, such that mobile node having plurality of network interface and switching from one network interface to the other by changing the driver wherein the switching is hidden from network interface in order to provide quality of service such as avoiding disconnected in communication when the users switching or changing the drivers.

Consider **claims 3, 16**. The combination of Linder and Yadav teach the method of claim 1. Further, Yadav teaches wherein the virtual interface provides a source address to the network layer to be used in data packets transmitted by the mobile node (Col.1, lines 12-16, Col.3, lines 6-13).

5. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linder et al. (2002/0194385 A1) in view of Yadav et al. (US 6,879,587 B1) and further view of Michaelis et al. (US 2004/0009751 A1).

Consider **claims 4, 17**. The combination of Linder and Yadav teach the method of claim 1, **but is silent on** selecting the second one of the network interfaces, based on a signal strength of each network interface and a user priority assigned to each network interface.

In an analogous art, Michaelis teaches "Interface selection in a wireless communication network". Further, **Michaelis teaches** the method of claim 1, further comprising: selecting the second one of the network interfaces, based on a signal strength of each network interface and a user priority assigned to each network interface (Paragraph [0004], [0007], teach technique for selection wireless network interface wherein base on a signal strength and priority).

Therefore, it would have been obvious at the time that the invention was made to modify Linder and Yadav with Michaelis's system, such that selecting the second one of the network interfaces, based on a signal strength of each network interface and priority assigned to each network interface to provide means for the mobile device maintain quality of service without disconnected by selected the best link/interface base on signal strength.

6. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linder et al. (2002/0194385 A1) in view of Yadav et al. (US 6,879,587 B1) and further view of Stockhusen (US 7,181,237 B2).

Consider **claim 12**. The combination of Linder and Yadav teach the method of claim 1, **but is silent on** automatically selecting the second network interface based on predefined criteria; displaying an identification of the automatically selected interface; receiving a manual override instruction from a user identifying a selection of the second network by the user; and switching to the network selected by the user.

In an analogous art, **Stockhusen teaches** automatically selecting the second network interface based on predefined criteria (Col.8, lines 56-67, Col.9, lines 1-6 teach the automatic selection); displaying an identification of the automatically selected interface; receiving a manual override instruction from a user identifying a selection of the second network by the user; and switching to the network selected by the user (Col.2, lines 60-67, Col.3, lines 1-14 teach the mobile phone contain plurality mode allow the users to switching and selecting the network wherein the mobile phone having display for displaying an identification of the automatically selected interface).

Therefore, it would have been obvious at the time that the invention was made to modify Linder and Yadav with Stockhusen's system, such that automatically selecting and displaying the selecting that the user identifying a selection to provide means for the users of mobile device capable of operated in a fast mode for and accurate selecting the network interface.

7. Claims 5, 6, 18, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linder et al. (US 2002/0194385 A1) in view of Michaelis et al. (US 2004/0009751 A1).

Consider **claim 5, 18 and 23**. Linder teaches a method of operating a mobile node and a computer readable medium, encoded with computer code, the method comprising the steps of:

identifying at least two available interfaces for communications by the mobile node (Fig.1 show mobile contain at least two network interfaces 14-17). **Linder fails to explicitly teaches**

determining a plurality of characteristics of each of the network interface, wherein the characteristics for each network interface including signal strength value and user priority value;

selecting one of the network interfaces based on the characteristics of the respective network interface, wherein a weight applied to the user priority value for each network interface depends on the respective signal strength for the network interface; and communicating by way of the selected network interface

Michaelis teaches determining a plurality of characteristics of each of the network interface, wherein the characteristics for each network interface including signal strength value and user priority value (Paragraphs [0004-0005]);

selecting one of the network interfaces based on the characteristics of the respective network interface (Paragraphs [0007]), wherein a weight applied to the user priority value for each network interface depends on the respective signal strength for the network interface; and communicating by way of the selected network interface (Paragraphs [0022-0023], [0033], [0051]).

Therefore, it would have been obvious at the time that the invention was made to modify Linder with Michaelis's system, such that identifying at least two available interfaces for communications by the mobile node, selecting one of the network

interfaces based on the characteristics wherein the characteristics including signal strength value and user priority value to provide means for improve the security by selecting the highly priority interface with strong signal strength.

Consider **claim 6**. The combination of Linder and Michaelis teach a method according to claim 5. Further, Michaelis teaches wherein the mobile node is communicating by way of a current network interface connection other than the selected network interface, the method further comprising:

establishing a connection between the mobile node and the selected network interface (Paragraph [0006])and

maintaining the current network interface connection until after the connection between the mobile node and the selected network interface is established (Paragraphs [0026-0027]).

Consider **claim 20**. The combination of Linder and Michaelis teach the mobile node of claim 18. Linder teaches wherein the selecting means includes hysteresis (Paragraph0011-0012) Fig.1 show plurality of interfaces for the users to select/change between networks and allow the mobile devices to change networks which read on selecting means including hysteresis).

8. **Claims 10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Linder et al. (US 2002/0194385 A1) in view of Michaelis et al. (US 2004/0009751 A1) and further view of Ayyagari et al. (US 2002/0176366).

Consider **claim 10**. The combination of Linder and Michaelis teach the method of claim 5, but is silent on wherein a weight coefficient of zero is applied to the user priority value for each network interface having a signal strength below a respective threshold value for that network interface.

In an analogous art, Ayyagari teaches "System and method for achieving zero-configuration wireless computing and computing device incorporating same". Further, **Ayyagari teaches** the method of claim 9, wherein a weight coefficient of zero is applied to the user priority value for each network interface having a signal strength below a respective threshold value for that network interface (Abstract, Paragraph [0014], [0061-0062]).

Therefore, It would have been obvious at the time that the invention was made to modify Linder and Michaelis with Ayyagari's system, such that weight coefficient of zero is applied to the user priority value for each network interface having a signal strength below a respective threshold value for that network interface to provide means for priority for improve and maintain the connection of communication whenever the signal strength is indicated and calculated.

Consider **claim 11**. The combination of Linder and Michaelis and Ayyagari teaches the method of claim 10. In addition, Ayyagari discloses where the mobile node

is currently communicating by way of a current network interface connection, and the threshold value for the current network interface connection is lower than the threshold value for other network interfaces (Paragraph [0061]).

Allowable Subject Matter

9. Claim 8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIET DOAN whose telephone number is (571)272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kiet Doan/
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617